

THE ENTREPRENEURIAL LANDSCAPE AND IMPACTS OF COVID-19

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ABSTRACT

Numerous sources of data that are traditionally used by small businesses and entrepreneurship researchers, primarily from government entities, have not caught-up with actual conditions on the ground. COVID-19's impact on the social and economic picture around the globe has been like watching a train wreck taking place on "Main Street" in slow motion. Doomsday "preppers" and at least some of their prognostications and suggestions moved towards the mainstream, having greater acceptance than before. One of the more popular books on Amazon, covering the topic of canning and preserving foods, was on backorder for at least several weeks, and as of the time of this writing, it has been months since one could easily acquire canning supplies such as jar lids on retailers' shelves. There were shortages on major websites of sewing machines, elastic, and other materials—even those that are substitute goods such as coffee filters, when individuals and groups engaged in making their own masks. Panic buying also wiped out inventories of hand sanitizers, disinfecting aerosol sprays, bleach, toilet paper, and numerous other products that consumers felt they might need, including guns and ammunition. A vast majority of businesses have not fared well. Hospitality, tourism, and the restaurant industries have been hit hard, and there are also disparate impacts among certain demographic groups relative to small-business owners. Bad actors are also hard at work, launching scams. Many have essential items for resale on websites such as Craigslist and eBay. This research presents a systematic review of the impact of COVID-19 on small businesses. It further examines the phenomenon in a broader socioeconomic and cultural context.

Keywords: COVID-19, small business, entrepreneurship, innovation, U.S. and global economy

INTRODUCTION¹

“COVID-19 constitutes both a health crisis and an economic crisis” (Stephens, Jahn, Fox, Charoensap-Kelly, Mitra, Sutton, & Meisenbach, 2020). Three key themes arise in connection with this study: Implications for economic development; public policy; and, the role of free enterprise in a pre- and post-COVID-19 economy. Gopinath (2020), writing on the International Monetary Fund's blog, declared via a post title that: “The ‘great lockdown’ has

¹This paper, while it is a unique work product, is connected to an ongoing research stream (including literature review databases) pertaining to the small business and gig economy.

been the ‘worst economic downturn’ since the Great Depression.” Impulse buying has created major fluctuations in the availability of certain goods (Ahmed, Streimikiene, Rolle, & Duc, 2020). Certain industries and jobs have been affected more than others (Brown, 2020). Travel, hospitality, restaurant, and other industries (which involve higher degrees of personal contact) have been among the hardest hit (Brown, 2020). Sports arenas, movie theaters, amusement parks and other venues that engage large gatherings have been closed, opened under restrictions, and might close again (Gunay & Kurtulmuş, 2021). Small-business owners have been threatened with the loss of business licenses, fines, forced closures, and jail time; individuals as well, have been subjected to stay-at-home directives (Knowles, Ettenson, Lynch, & Dollens, 2020) that often directly correspond with business operations (or the lack thereof). Education is in a state of upheaval (Goings, 2020) as well as government services (Bana, Benzell, & Solares, 2020) of all kinds. Another term, “non-essential” (Cowling, Brown, & Rocha, 2020), is also now in popular use. There are non-essential jobs and non-essential businesses, as well as some argument as to what constitutes the opposite of these, i.e., essential (the same logic is being applied relative to vaccine eligibility and distribution). “Governments have also imposed the forced closure of businesses and subsequently placed severe restrictions on how they do business. Not since the Second World War have governments assumed such a managerial role in capitalist economies” (Greene & Rosiello, 2020, p. 586).

At the same time, evidence of abundant ingenuity (and resolve) can be found on social media (as they are amplified by traditional media). DIY’ers organized in groups and shared information about how to make breathing masks and other personal protective gear. Policy mandates, lessened demand, health concerns and other considerations have resulted in the closing of stores, factories, and many other businesses (Fairlie, 2020). Toilet paper was wiped out from store shelves (Kirk & Rifkin, 2020). Terms such as “social distancing” (Bana et al., 2020; Gunay & Kurtulmuş, 2021) have become familiar. One company that has been affected in a positive way by social distancing is Zoom, which has gone from a relative niche player in business communication (i.e., videoconferencing) services to being a household name (Galgani, 2020). According to Kickul and Lyons (2012), social entrepreneurs and their efforts are directed toward a “social mission, using the processes, tools, and techniques of business entrepreneurship” (p. 19). The aforementioned anecdote about mask-making and community organizing exemplifies social entrepreneurs’ efforts well. Bad actors are also hard at work, launching scams (Federal Trade Commission, 2020; Consumer Action, 2020) and hoarding (Kirk & Rifkin, 2020) essential items (including for the purpose of resale on websites such as Craigslist and eBay). With the above as a brief sketch to depict some highlights of 2020, this research aims to more systematically review COVID-19 impacts and entrepreneurs’ responses.

LITERATURE REVIEW

As previously noted (Footnote 1), the topic of interest outlined hereunder is part of a continuing research stream, the aim of which is to make meaningful contributions to the literature of the small business and entrepreneurship discipline (which in turn, is integral to the economy and well-being of a citizenry at large). Version 9.1 of the list entitled, “*Core*

publications in entrepreneurship and related fields: A guide to getting published,” compiled and maintained by Jerome Katz (2019), has been regarded as authoritative in determining coverage of the topics at hand in the scholarly literature that is associated with these disciplines. As an observation, scholarly research—often with a long publication cycle—has a limitation relative to exploring the impact of COVID-19 in terms of providing immediacy.

Other kindred go-to sources for small business and entrepreneurship researchers, also have demonstrated themselves to have a similar limitation. For example, the U.S. Small Business Administration’s (SBA) Office of Advocacy publishes an oft-quoted FAQs document, updated annually (US Small Business Administration, 2020a). In reviewing the SBA’s most recent release, which is dated October 2020, one would likely not even imagine that a global pandemic (crisis) existed until arriving at a footnote at the bottom of the first page and then headings on the second page of the document. The web page which hosts the SBA’s *December Economic Bulletin* states [a rather apparent lament]: “the lack of recent data on business closures makes it difficult to assess the overall state of small business” (US Small Business Administration, 2020b). As observed by Fairlie (2020), “the early effects of COVID-19 on small business and entrepreneurs are not well-known because of the lack of timely business-level data released by the government” (p. 727).

A local computer database comprised of approximately 220 items associated with small business/entrepreneurship, freelance and gig economy (current through February 2020, but pre-COVID-19) has been a key resource for this present research, relative to benchmarking the state of the entrepreneurial landscape before the disruptions of a global pandemic inserted themselves. This earlier database has been combined with results from post-COVID-19 searches using library databases current through mid-January 2021. Library database collections including those from *ABI/INFORM*, *Ebsco*, and *ProQuest* have been consulted. Filters have been applied to these library database searches, setting limits as follows: scholarly sources and full text available. A filter was also applied to limit results to business disciplines. Most importantly, for the benefit of other future researchers who may wish to discern a breadcrumb trail, the reasons for narrowing results to business disciplines are two-fold. First, across disciplines and around the globe, there are millions of results relative to scholarship pertaining to all aspects of COVID-19 (medical/health care disciplines being a prime example, as one might easily guess). Secondly, as stated, this present research is focused on contributing directly to the literature that is associated with small business and entrepreneurship (for the benefit of future scholars whose work is focused in these areas).

Cross-referencing the aforementioned core publications list by Katz (2019), in the mid- to latter part of 2020, articles addressing aspects of COVID-19 included: (one) article in *Entrepreneurship Theory and Practice* (Audretsch & Moog, 2020); six appeared in the *International Small Business Journal* (Cowling et al., 2020; Greene & Rosiello, 2020; Manolova, Brush, Edelman, & Elam, 2020; Morgan, Anokhin, Ofstein, & Friske, 2020; Nummela, Paavilainen-Mäntymäki, Harikkala-Laihinen, & Raitis, 2020); and one article was published in the *Strategic Entrepreneurship Journal* (Alvarez & Barney, 2020). Both of the latter two journals are in the UK; no slight is intended in any context—this is merely to support the

observation that the literature that is specific to small business and entrepreneurship still has some catching-up to do.

The software used for the resulting main database for this paper as a whole—approximately 375 artifacts/records—allows for attachments (e.g., PDF, Excel, and images) in connection with individual bibliography items (or if one prefers: database record). Additional local databases, in support of research on topics such as social entrepreneurship, innovation, and new product development, comprised of hundreds of artifacts have served to further inform this present research on the periphery (it is assumed under a qualitative framework that the relevance of an item might come to the attention of the researcher as analysis ensues). Multiple search strategies have been used to develop databases like the ones mentioned above, as an ongoing stream of research has been pursued over a period of several years.

Finally, and relative to the grand total and description of artifacts available to inform this research, items of interest have also been collected from numerous other sources beyond well-known library databases such as those indicated above. As examples, reports from research organizations such as the NFIB Research Foundation; documents produced by government agencies, e.g., Congressional testimony from hearings (typically captured as transcripts and publicly available video content); and content from popular press sources have been captured. As is well known to scholarly researchers, one would normally prefer to avoid popular press sources. However, it has been necessary to include these under the circumstances, given scholarly research (and traditional sources of data as discussed above) are slowly emerging. Even if such popular press sources such as the business press and blogs may be lacking in rigor and regarded with some suspicion, they do at least recognize that conditions on the ground for small businesses and millions of others, such as individuals who are now displaced and unemployed, have drastically changed; they can also sometimes point to original source materials that are more authoritative.

METHODOLOGY

Under a qualitative researcher's framework, the role of the researcher is to ask questions, collect data, and to identify patterns and themes under a qualitative paradigm; the researcher's concurrent objectives are to interpret meaning(s) and report findings. Attachments, as discussed above, are identified as artifacts (besides attachments as described, other types are allowable in qualitative studies of a different nature: pictures, film, sketches, ethnographers' field notes, as examples). All artifacts may be regarded as sources of data, and these may in-turn be analyzed under a qualitative research paradigm (Creswell, 1994; Hodder, 1994; Strauss & Corbin, 1994). Where similar or the same patterns may present themselves through multiple forms or sources of data, confidence in researchers' findings may be increased through triangulation (Caporaso, 1995; Maxwell, 1992). On the other hand, data that is lacking in credibility (or fitment relative to the study of a given phenomenon) may be discounted or dismissed (Caporaso, 1995). From patterns in data, the qualitative researcher seeks to establish theoretical frameworks while using a constructivist approach (Barry, 1996; Schwandt, 1994). Such frameworks are not intended to be or presented as being generalizable. Rather, where little is known about a phenomenon due to a

lack of prior scholarly research or other foundational resources, such qualitative research approaches may be deemed necessary.

DISCUSSION

Overview

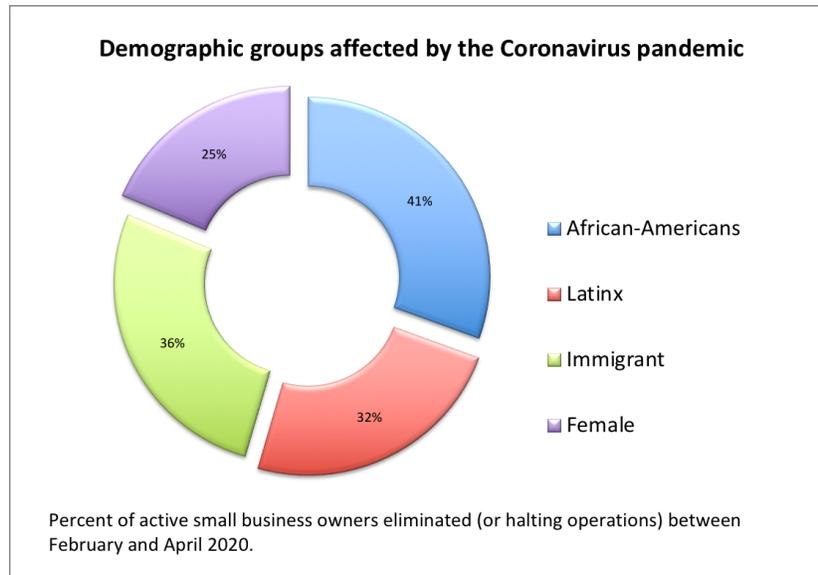
Freelancing, home-based business pursuits, self-employment, and the gig economy had been trending upward (Lahm, 2020), at least, prior to the insertion of COVID-19 into the global social and economic picture. For instance, Dourado and Koopman (2015) utilized IRS 1099-MISC form data and concluded: “The shift toward more contract work is a real and dramatic change in the labor market.” Following the Great Recession (Katz & Krueger, 2016; Larrimore, Durante, Kreiss, Park, & Sahn, 2018), small business start-ups have also been rebounding. The U.S. Small Business Administration’s (SBA) Office of Advocacy defines what constitutes a small business based on size: businesses with fewer than 500 employees.

According to the SBA’s latest FAQ document (“Frequently asked questions about small business,” 2020), there were 31.7 million such small businesses in 2017, according to the most recent published data as of October 2020. In fact, 99.9 percent of all firms in the U.S. fall under this employees-size-based threshold. Just over eight out of ten (81 percent or 25.7 million) small businesses do not have any employees (labeled non-employers); the other 19 percent (6 million), do have paid employees. However, as suggested, now we are just not completely sure exactly where small businesses stand (researchers are extrapolating as best they can). Post-COVID-19, data are coming in. What we do know, is that many small businesses and industries, government entities, and economies—in fact the entire global economy—has been hit hard; individuals in all walks of life have tried to adapt; some have failed to do so altogether, and others have demonstrated resiliency to some degree or another. We also know that history has demonstrated that there is often opportunity in times of adversity (Bacq, Geoghegan, Josefy, Stevenson, & Williams, 2020; Dobson, Nieto, Dobson, & Ochoa, 2019; Greene & Rosiello, 2020).

Hardest-Hit Businesses

Fairlie (2020), extrapolating from CPS (Current Population Survey) data from the Bureau of Labor Statistics, found demographic patterns among small-business owners who have been hit the hardest as shown below in Figure 1:

Figure 1
Small businesses that have been eliminated or have halted operations².

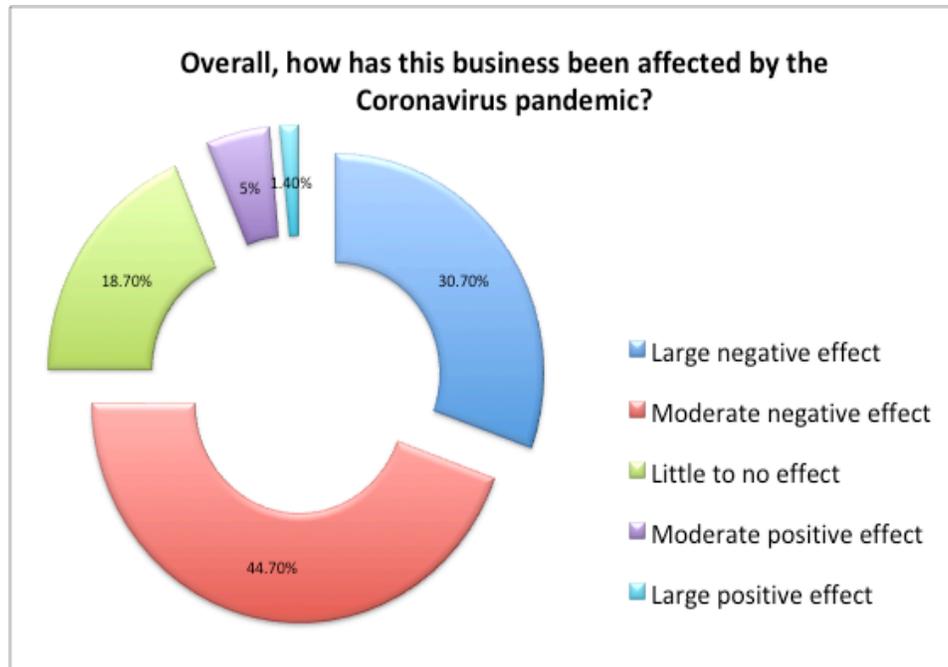


Fairlie (2020) characterized findings relative to patterns that were discernable across gender, race, and immigrant status as “alarming” (p. 728). Figure 1 illustrates that between February and April 2020, 41% of active African-American business owners experienced the largest losses, i.e., were eliminated; 32% of Latinx business owners halted activity; 36% of immigrant business owners, and 25% of female business owners, suffered drops in business activity as well. Although to a somewhat lesser degree, impacts from COVID-19 along demographic lines were found to persist through May and June 2020 (with June marking the end of the data set/period employed, included in Fairlie’s research).

The U.S. Census Bureau’s *Small Business Pulse Survey* (US Census Bureau, 2021), is shedding some light on business owners’ perceptions of the impact as illustrated in Figure 2:

²Figure developed from analysis in Fairlie (2020). The impact of COVID-19 on small business owners: Evidence from the first 3 months after widespread social-distancing restrictions. *Journal of Economics & Management Strategy*. doi:10.1111/jems.12400; “Patterns across gender, race, and immigrant status reveal alarming findings” (p.728).

Figure 2
Coronavirus pandemic's effect on small businesses (national averages)³.



As shown in Figure 2, at the end of 2020 and the beginning of 2021, just over 30% of businesses reported a “large negative effect.” This percentage is down from that in 2020, when just over half of businesses reported significant distress (Brown, 2020). On the other end of the spectrum, only about one-and-a-half percent reported a “large positive effect.”

COVID-19: An Evolving Story

Table 1 below presents a collage of fifty subject lines collected between February 2020 and January 2021 in a researcher’s email account (in order of newest first, to oldest last). Since some email account search tools vary in robustness, it may be helpful to know that the account provider is Google’s Gmail service, using the search term “COVID-19.” Numerous email subject lines are not included as they were similar, along the lines of “what we are doing to help” from banks, insurance companies, consumer organizations, etc. Many are articles forwarded

³Figure developed from data published by The U.S. Census Bureau’s *Small Business Pulse Survey* [extracted using pull-down menus; survey data collected from 12/28/2020 to 1-3-2021]. Percentages in the chart presented are rounded. Retrieved January 15, 2021, from <https://portal.census.gov/pulse/data/>

from news organizations' websites. Being regarded as data—which they are under a qualitative frame—such subject lines could be useful as one means of documenting an evolving story.

Table 1
COVID-19: Subject Line Collage

Unemployment claims jump to highest level since August amid COVID-19 surge
UC San Diego places COVID-19 test kits in vending machines throughout campus
COVID-19 restrictions force military veteran to close candy shop
CEO of BrewDog offering bars as COVID-19 vaccination venues: 'We have waiting areas, huge refrigerators'
COVID-19 vaccine outlook prompts businesses to dust off return-to-office plans
COVID-19 upended Americans' finances, just not in the ways we expected
SimpliSafe's holiday 'Social Distancing Sweater' sells out, supports COVID-19 charity
Celebrity chef José Andrés transforms shuttered restaurants to feed the hungry amid COVID-19 pandemic
COVID-19 pandemic puts squeeze on pension plans
Coronavirus tracking apps having 'modest' impact amid pandemic, expert says
Coronavirus breathalyzer test is a 'game changer' for economy
'Very dark couple of weeks': Morgues and hospitals overflow
Coronavirus passports with vaccination info in development: Report
Nail salons fear for survival during COVID-19's latest spike
NYC bar in COVID-19 hotspot refuses to shut down after state yanks liquor license
Macy's Thanksgiving Day Parade will go on with no audience due to COVID-19
Coronavirus sickens nearly 1,000 Cleveland Clinic health care workers
Rich New Yorkers are hiring line-waiters to sit in COVID-19 testing queues
Retailers brace as COVID-19 bears down on consumers and economy
Airport COVID-19 symptom screening 'ineffective,' CDC report says
Coronavirus tests delivered by drone pilot project in Texas
Chipotle faces employee shortages as COVID-19 cases spike
American shoppers panic-buying as coronavirus spike aggravates year of upheaval
Home is where Americans feel safest amid coronavirus pandemic, survey finds
WHO warns against COVID-19 lockdowns due to economic damage
Grocery stores, food producers beef up inventory for potential second wave of COVID-19, holiday shopping rush
Small business leaders urge Congress to pass standalone COVID-19 relief package
Hard ball: COVID-19 slams Cleveland's baseball bars, clubs
Maine inn linked to coronavirus outbreak from wedding gets license reinstated
Friday night takeout is keeping U.S. restaurants afloat during economic, COVID-19 crises
We need to take care of long-term COVID-19 patients
Safely reopening schools and providing students with quality education
This COVID-19 "long-hauler" has had symptoms for 120 days
Which hand sanitizers are toxic or ineffective?
Scam Gram: Saving you from COVIDiocy
Temporary emergency video notarization
Communicating on social media during COVID-19
Harvard prof calls homeschooling 'dangerous,' says it gives parents 'authoritarian control' over kids
Apple, Google announce joint COVID-19 contact tracing tech
Las Vegas doctor explains how 'proning' COVID-19 patients can be 'difference between life and death'
Coronavirus: Was your flight cancelled?
Coronavirus: Financial help ahead; more left to do!
Professors: Tips during COVID-19

Tax deadline extended to July 15
GOP senator told donors about COVID19...but no one else
An important update on coronavirus
Coronavirus update: Operation Purple
Coronavirus can remain in air for 3 hours, live on plastic for days, new study says
Complementary software offering for organizations transitioning to remote environments
Scam gram: Inoculate against coronavirus cons

Societal Responses: Pivot (or Else)

Consumer reactions to COVID-19 have included panic buying and severe shortages; some of the hoarding behaviors of consumers were likely exacerbated by their actual witnessing of empty store shelves and the heightened credibility of extreme survivalists, a.k.a. doomsday “preppers” (Kirk & Rifkin, 2020, p. 125). “The COVID-19 pandemic paralyzed the world and revealed the critical importance of supply chain management—perhaps more so than any other event in modern history—in navigating crises” (Craighead, Ketchen, & Darby, 2020, p. 838). Sales of Consumer-Packaged Goods (CPG) in numerous categories, especially of goods related to basic hygiene and personal protective gear spiked. Consumers caused widespread shortages when they spent more on toilet paper in mid-March (2020) than on any other category (340 of these are tracked) in grocery stores; toilet paper sales spiked again to 5th place in November (NC Solutions, 2020). There were hand sanitizer shortages; also, masks, gloves, face shields, and similar gear was depleted (Güntner, Magro, van den Broek, & Pratsinis, 2021; Thomson & Bullied, 2020). Small breweries, liquor distilleries, and larger businesses in the cosmetics industry such as L'Oréal, LVMH and Nivea, realized that they could pivot and stepped-in to use their facilities for making hand sanitizers (Obrenovic, Du, Godinic, Tsoy, Khan, & Jakhongirov, 2020; Thomson & Bullied, 2020; Von Krogh, Kucukkeles, & Ben-Menahem, 2020).

Pivoting on the part of small businesses may occur at any time; the motivation to alter a business model could be exogenous shocks (Cowling et al., 2020; Morgan et al., 2020), such as the pandemic, or opportunism in circumstances that are less dire. However, some would argue that “all businesses must pivot their business models in times of tumultuous change, simultaneously reducing risk and seizing new opportunities” (Manolova et al., 2020, p. 481). There are numerous accounts in the popular business press of creative responses on the part of entrepreneurs, many of which are off-the-beaten-track. For instance, a \$1.5 million face masks, widely publicized as the world’s most expensive, was commissioned by an unidentified buyer from an Israeli-luxury jewelry brand, Yvel. Proceeds were used to provide back pay for the firm’s employees, who had endured shortages for several months (Davis, 2020).

Pivoting is not limited to small business. Organizations of all kinds shifted operations, at least in part, to workers’ homes, with some inconclusive results in terms of impacts on productivity (Bolisani, Scarso, Ipsen, Kirchner, & Hansen, 2020). Working from home created both hardships and opportunities for products and services to arise (Bana et al., 2020; Bolisani et al., 2020; Obrenovic et al., 2020). “The pandemic has also drastically increased the presence of digital technology in our personal lives” (Gunay & Kurtulmuş, 2021, p. 2). Collado-Borrell, Escudero-Vilaplana, Villanueva-Bueno, Herranz-Alonso, and Sanjurjo-Saez (2020) conducted a

descriptive study of smartphone apps associated with COVID-19. Their method included systematic searches in Apple's app store (iOS platform) and the Google Play Store (Android platform); searches were conducted between April 27 and May 2, 2020. They identified at that time 114 apps, and categorized these by their primary use(s), concluding that "the most common purposes of the apps are providing information on the numbers of infected, recovered, and deceased patients, recording of symptoms, and contact tracing" (p. 1). According to their analysis, about half of the apps studied were developed by government agencies; origins were global in scope. One limitation is that their findings were tied to medically-oriented applications.

Many other types of apps have been emerging. In an article addressed to an audience of mobile app developers, Agrawal (2020) outlined opportunities in light of new conditions brought about by COVID-19. These included E-commerce apps—which would be inclusive of myriad mobile shopping apps for grocery and food delivery, pharmacy apps and others that would facilitate consumers' access to shopping goods while they may be in lockdown or restricted access situations; fitness apps—these may serve to aid consumers in the absence of complete access to gyms and fitness centers; proper diet apps; recreational activities apps; video calling apps; mobile payment gateway apps; learning apps, and cooking apps. The author noted that the list provided was just the tip of the iceberg relative to needs and development opportunities.

Morgan, et al. (2020) described instances of small businesses pivoting while focusing on social value. Healthcare workers and other employees who were deemed essential, for example, received donated meals from locally-owned restaurants during periods when shelter-in-place orders had been issued by government authorities. Mandatory shutdowns, however, were more difficult for some types of businesses to contend with via pivoting. It's one thing for a restaurant to be partially open with outdoor dining and take-out services operating, but another altogether to cease operations entirely.

Innovation

There are some key differences relative to COVID-19, as compared to the last major pandemic, which took place approximately 100 years ago: the Spanish flu of 1918–1920 (Greene & Rosiello, 2020; Smith, 2020). While we still do not know the full impact of COVID-19, and additional strains appear to be emerging, technologies have evolved such that "ultrafast innovation" (Von Krogh et al., 2020, p. 9) has been made possible in a variety of fields. Among the newer technologies making a difference are artificial intelligence (AI), cloud computing, and data analytics (Taylor & Francis Online, 2020; McCausland, 2020b; Von Krogh et al., 2020). McCausland (2020b) provided several examples of AI applications in use which "helped fill the gap when COVID-19 strained medical staff and healthcare systems around the world" (p. 2). One such AI example was a hospital in Florida which was attempting to identify and separate visitors who might have been infected from its personnel and other patients using screening at entrances to identify signs of infection using thermal scans, sweating, or facial discoloration.

As observed by Gunay and Kurtuluş (2021), "Through acceleration of the digital transformation, remote work, e-learning, and even remote health services have become practicable" (p. 2). Related to this transformation, digital manufacturing, e.g., 3D printing, had

been arising as a game changer prior to COVID-19; but in response to the pandemic and shortages of Personal Protective Equipment (PPE) “companies big and small began manufacturing face masks, face shields, swabs, and parts for ventilators to help solve the shortage” (McCausland, 2020a, p. 62). Larger businesses such as Ford Motor Company, 3M, and General Electric, partnered to produce protective medical equipment (Obrenovic et al., 2020); Dyson, known for its innovative vacuum cleaners, is using air compression technologies for medical patient ventilators (Von Krogh et al., 2020).

These same authors cited immediately above also discussed repurposing in the pharmaceutical industry. Repurposing generally refers to finding new uses for existing drugs, which can lead to accelerating the development of treatments to impede the progression of a given adverse condition, to cures, and/or preventative interventions, e.g., as suggested here: a COVID-19 vaccine (Gopinath, 2020; Smith, 2020). The notion of repurposing is not limited to pharmaceuticals; “Jeff Bezos and Elon Musk repurposed manufacturing capacity and expertise from their respective rocket enterprises, Blue Origin and SpaceX, and to 3D-print face shields for health care workers” (Von Krogh et al., 2020, p. 9).

CONCLUSION

The intent of this research has been to advance a greater understanding of where we are going from here in the pandemic era. The COVID-19 pandemic has “afflicted the health, economy, politics, culture, and psychology of almost the whole global system” (Tuncer, 2020, p. 1). Cowling, Brown and Rocha (2020) studied the savings patterns of SMEs, while acknowledging a limitation to their findings in that they were specific to the United Kingdom. Nevertheless, some authors suggested that SMEs shared similar overall savings patterns around the globe (i.e., they typically have very limited access to capital regardless of location) and suggested: “If hundreds of thousands of smaller businesses are at risk of running out of cash, given a lengthy period of time when sales incomes are either falling, or have stopped completely, this represents a systemic risk to most economies given the predominance of SMEs in the economic landscape” (p. 594). Anecdotal as some sources of data for further analysis may be, we have been witnessing a “train wreck on ‘Main Street.’” Before COVID-19, small businesses had their challenges. With some unfortunate irony, access to affordable health care was at the top of the list for decades, according to NFIB (National Federation of Independent Businesses) research (Wade, 2016).

Glimpses of entrepreneurs’ reactions and innovations have emerged, along with hope for recovery. Smith (2020) has declared the beginnings of a “COVID Renaissance” (p. 60):

From the destruction of the COVID-19 pandemic will spring thousands of innovations, large and small. Hundreds of new businesses already offer goods and services—like simple face masks and Plexiglas shields—designed to protect healthcare and service workers and customers in accordance with new regulations and social norms. Companies are developing new sanitation products, new designs for airline seats, and new restaurant layouts. Business office layouts and fitness center designs are changing, and new software is being developed to assist with selling event tickets for entertainment venues. Online grocery shopping and telemedicine have exploded from a tiny niche to a major business trend (p. 60).

Now, small business and citizenries at large continue in their struggle to address a far more complex problem: How to rebuild a sustainable economy in a world that is being ravaged by a global pandemic?

REFERENCES

- Agrawal, A. (2020, June 15). Mobile app development ideas during Covid-19 pandemic. Retrieved from <https://customerthink.com/mobile-app-development-ideas-during-covid-19-pandemic>
- Ahmed, R. R., Streimikiene, D., Rolle, J. A., & Duc, P. A. (2020). The COVID-19 pandemic and the antecedents for the impulse buying behavior of US citizens. *Journal of competitiveness*, 12(3), 5-27. doi:10.7441/joc.2020.03.01.
- Alvarez, S. A., & Barney, J. B. (2020). Insights from creation theory: The uncertain context rendered by the COVID-19 pandemic. *Strategic Entrepreneurship Journal*, 14(4), 552-555. doi:10.1002/sej.1379.
- Audretsch, D. B., & Moog, P. (2020, August). Democracy and entrepreneurship. *Entrepreneurship: Theory & Practice*. doi:10.1177/1042258720943307.
- Bacq, S., Geoghegan, W., Josefy, M., Stevenson, R., & Williams, T. A. (2020). The COVID-19 virtual idea blitz: Marshaling social entrepreneurship to rapidly respond to urgent grand challenges. *Business Horizons*, 63(6), 705-723. doi:10.1016/j.bushor.2020.05.002.
- Bana, S. H., Benzell, S. G., & Solares, R. R. (2020). Ranking how national economies adapt to remote work. *MIT Sloan Management Review*, 61(4), 1-5.
- Barry, D. (1996). Artful inquiry: A symbolic constructivist approach to social science research. *Qualitative Inquiry*, 2(4), 411-438.
- Bolisani, E., Scarso, E., Ipsen, C., Kirchner, K., & Hansen, J. P. (2020). Working from home during COVID-19 pandemic: Lessons learned and issues. *Management & Marketing*, 15(1), 458-476. doi:10.2478/mmcks-2020-0027.
- Brown, D. (2020, December 21). The pulse of small business: An industry breakdown. Retrieved from <https://cdn.advocacy.sba.gov/wp-content/uploads/2020/12/21102154/December-PULSE-Fact-Sheet.pdf>
- Caporaso, J. A. (1995). Research design, falsification, and the qualitative-quantitative divide. *American Political Science Review*, 89(2), 457-460.
- Collado-Borrell, R., Escudero-Vilaplana, V., Villanueva-Bueno, C., Herranz-Alonso, A., & Sanjurjo-Saez, M. (2020). Features and functionalities of smartphone apps related to COVID-19: systematic search in app stores and content analysis. *Journal of Medical Internet Research*, 22(8), e20334. Retrieved from <https://www.jmir.org/2020/8/e20334>
- Consumer Action (2020, February 18). Scam Gram: Inoculate against coronavirus cons. Retrieved from <https://www.votervoice.net/ConsumerAction/newsletters/35487>
- Cowling, M., Brown, R., & Rocha, A. (2020). Did you save some cash for a rainy COVID-19 day? The crisis and SMEs. *International Small Business Journal*, 38(7), 593-604. doi:10.1177/0266242620945102.
- Craighead, C. W., Ketchen, D. J., & Darby, J. L. (2020). Pandemics and supply chain management research: Toward a theoretical toolbox. *Decision Sciences*, 51(4), 838-866. doi:10.1111/deci.12468.
- Creswell, J. W. (1994). *Research design: Qualitative & quantitative approaches*. Sage Publications, Thousand Oaks, CA.
- Davis, D. M. (2020, December 12). An Israeli luxury brand designed this \$1.5-million face mask to help support its employees during the pandemic. Retrieved from <https://www.businessinsider.com/issac-levy-cofounder-yvel-talks-making-a-million-dollar-mask-2020-12>
- Dobson, J. A., Nieto, Y. C., Dobson, L., & Ochoa, A. M. (2019). Success through failure: Towards a problem-based approach to entrepreneurship. *Entrepreneurship Education and Pedagogy*, 251512741988413. doi:10.1177/2515127419884132.
- Dourado, E., & Koopman, C. (2015). Evaluating the growth of the 1099 workforce. Retrieved from <https://www.mercatus.org/publication/evaluating-growth-1099-workforce>
- Fairlie, R. (2020). The impact of COVID-19 on small business owners: Evidence from the first 3 months after widespread social-distancing restrictions. *Journal of Economics & Management Strategy*, 29, 727-740. doi:10.1111/jems.12400.

- Federal Trade Commission (2020). Consumer Sentinel Network Newsletter. Retrieved from <https://content.govdelivery.com/accounts/USFTC/bulletins/2a61351>
- Galgani, M. (2020, March 18). IPO stock with 275% growth keeps zooming in coronavirus stock market. Retrieved from <https://www.investors.com/research/breakout-stocks-technical-analysis/zoom-stock-ipo-leads-coronavirus-stock-market>
- Goings, R. B. (2020, March 27). Tips during COVID-19 for professors to support students. Retrieved from https://www.interfolio.com/resources/blog/tips-during-covid-19-for-professors-to-support-students/?utm_medium=email&utm_source=mailchimp&utm_campaign=D%20Segment&utm_content=3.30.2020%20Email
- Gopinath, G. (2020). The great lockdown: Worst economic downturn since the Great Depression. Retrieved from <https://blogs.imf.org/2020/04/14/the-great-lockdown-worst-economic-downturn-since-the-great-depression>
- Greene, F. J., & Rosiello, A. (2020). A commentary on the impacts of 'Great Lockdown' and its aftermath on scaling firms: What are the implications for entrepreneurial research? *International Small Business Journal*, 38(7), 583-592. doi:10.1177/0266242620961912.
- Gunay, S., & Kurtulmuş, B. E. (2021). COVID-19 social distancing and the US service sector: What do we learn? *Research in International Business and Finance*, 56. doi:10.1016/j.ribaf.2020.101361.
- Güntner, A. T., Magro, L., van den Broek, J., & Pratsinis, S. E. (2021). Detecting methanol in hand sanitizers. *iScience*, 102050. Retrieved from <https://www.sciencedirect.com/science/article/pii/S2589004221000183>
- Hodder, I. (1994). The interpretation of documents and material culture. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 393-402). Sage Publications, Thousand Oaks, CA.
- Katz, J. A. (2019, December 7). Core publications in entrepreneurship and related fields: A guide to getting published. Version 9.1. Retrieved from <https://sites.google.com/a/slu.edu/eweb/core-publications-in-entrepreneurship-and-related-fields>
- Katz, L. F., & Krueger, A. B. (2016). The rise and nature of alternative work arrangements in the United States, 1995-2015. NBER Working Paper No. 22667. Retrieved from <http://www.nber.org/papers/w22667>
- Kickul, J., & Lyons, T. S. (2012). *Understanding Social Entrepreneurship: The Relentless Pursuit of Mission in an Ever Changing World*: Taylor & Francis, Oxfordshire, UK.
- Kirk, C. P., & Rifkin, L. S. (2020). I'll trade you diamonds for toilet paper: Consumer reacting, coping and adapting behaviors in the COVID-19 pandemic. *Journal of Business Research*, 117, 124-131. doi:10.1016/j.jbusres.2020.05.028.
- Knowles, J., Ettenson, R., Lynch, P., & Dollens, J. (2020). Growth opportunities for brands during the COVID-19 crisis. *MIT Sloan Management Review*, 61(4), 1-5.
- Lahm, R. J. (2020, March 26–March 27). The small business landscape: The gig economy in 2020 and beyond. Proceedings of the 2020 Appalachian Research in Business Symposium. Retrieved from <https://business.eku.edu/sites/business.eku.edu/files/files/arbs/ARBS%202020%20Proceedings.pdf>
- Larrimore, J., Durante, A., Kreiss, K., Park, C., & Sahm, C. (2018, May). Report on the economic well-being of U.S. households in 2017. Retrieved from <https://www.federalreserve.gov/publications/files/2017-report-economic-well-being-us-households-201805.pdf>
- Manolova, T. S., Brush, C. G., Edelman, L. F., & Elam, A. (2020). Pivoting to stay the course: How women entrepreneurs take advantage of opportunities created by the COVID-19 pandemic. *International Small Business Journal*, 38(6), 481-491. doi:10.1177/0266242620949136.
- Maxwell, J. A. (1992). Understanding and validity in qualitative research. *Harvard Educational Review*, 62(3), 279-300.
- McCausland, T. (2020a). 3D printing's time to shine. *Research Technology Management*, 63(5), 62-65. doi:10.1080/08956308.2020.1790290.
- McCausland, T. (2020b). News and analysis of the global innovation scene. *Research Technology Management*, 63(4), 2-8. doi:10.1080/08956308.2020.1762441.
- Morgan, T., Anokhin, S., Ofstein, L., & Friske, W. (2020). SME response to major exogenous shocks: The bright and dark sides of business model pivoting. *International Small Business Journal*, 38(5), 369-379. doi:10.1177/0266242620936590.
- NC Solutions (2020). CPG and COVID-19 shopping trends. Retrieved from <https://www.ncsolutions.com/covid/>
- Nummela, N., Paavilainen-Mäntymäki, E., Harikkala-Laihin, R., & Raitis, J. (2020). When all doors close: Implications of COVID-19 for cosmopolitan entrepreneurs. *International Small Business Journal*, 38(8), 711-717. doi:10.1177/0266242620954127.

- Obrenovic, B., Du, J., Godinic, D., Tsoy, D., Khan, M. A. S., & Jakhongirov, I. (2020). Sustaining enterprise operations and productivity during the COVID-19 pandemic: "Enterprise effectiveness and sustainability model". *Sustainability (Basel, Switzerland)*, 12(15), 5981. doi:10.3390/su12155981.
- Schwandt, T. A. (1994). Constructivist, interpretivist approaches to human inquiry. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 118-137). Sage Publications, Thousand Oaks, CA.
- Smith, R. (2020). Innovation signals hope amid the pandemic. *Research Technology Management*, 63(5), 59. doi:10.1080/08956308.2020.1790257.
- Stephens, K. K., Jahn, J. L. S., Fox, S., Charoensap-Kelly, P., Mitra, R., Sutton, J., & Meisenbach, R. J. (2020). Collective sensemaking around COVID-19: Experiences, concerns, and agendas for our rapidly changing organizational lives. *Management Communication Quarterly*, 34(3), 426-457. doi:10.1177/0893318920934890.
- Strauss, A., & Corbin, J. (1994). Grounded theory methodology: An overview. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 273-285). Thousand Oaks, CA: Sage Publications.
- Taylor & Francis Online (2020, December 18). 2020 trends forecast. Research from the Innovation Research Interchanges' Annual Survey. *Research Technology Management*, 63(1), 18-28. doi:10.1080/08956308.2019.1686287.
- Thomson, E. L., & Bullied, A. R. (2020). Production of ethanol-based hand sanitizer in breweries during the COVID-19 crisis. *Technical quarterly*, 57(1), 47-52. Retrieved from <https://www.mbaa.com/publications/tq/tqPastIssues/2020/PublishingImages/TQ%E2%80%9057%E2%80%901%E2%80%900417%E2%80%9001.pdf>
- Tuncer, F. F. (2020). The spread of fear in the globalizing world: The case of COVID-19. *Journal of Public Affairs*, 20(4), 1-9. doi:10.1002/pa.2162.
- US Census Bureau (2021, January 14). Small business pulse survey. Retrieved from <https://portal.census.gov/pulse/data>
- US Small Business Administration (2020a, October). Frequently asked questions about small business. Retrieved from <https://cdn.advocacy.sba.gov/wp-content/uploads/2020/11/05122043/Small-Business-FAQ-2020.pdf>
- US Small Business Administration (2020b, December 8). December Economic Bulletin. Retrieved from <https://cdn.advocacy.sba.gov/wp-content/uploads/2020/12/08111415/December-Economic-Bulletin.pdf>
- Von Krogh, G., Kucukkeles, B., & Ben-Menahem, S. M. (2020). Lessons in rapid innovation from the COVID-19 pandemic. *MIT Sloan Management Review*, 61(4), 8-10.
- Wade, H. (2016). Small business problems & priorities. *NFIB Research Foundation*. Retrieved from <https://www.nfib.com/content/playbook/economy/nfib-research-the-top-10-problems-facing-small-business>